



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

**75 Hawthorne Street
San Francisco, CA 94105-3901**

NOV 01 2010

Myrnie Mayville
Bureau of Reclamation
2800 Cottage Way, Room E-2606
Sacramento, CA 95825

Subject: Draft Environmental Impact Statement for Upper Truckee River Restoration and Golf Course Reconfiguration Project, El Dorado County, California
[CEQ #20100345]

Dear Ms. Mayville:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the above project. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The DEIS clearly demonstrates the need to restore the hydrologic functionality of the Upper Truckee River by reconnecting the floodplain, meadow, and riparian areas with surface and groundwater. Lake Tahoe water quality studies have identified the Upper Truckee River as the largest source of fine sediment from stream bank erosion (p. 3.4-18). The proposed restoration would substantially reduce the volume of fine sediment and nutrients entering Lake Tahoe, thereby supporting key water quality goals of the Tahoe Regional Planning Agency, Lahontan Regional Water Quality Control Board, and Lake Tahoe Environmental Improvement Program. EPA supports restoration of the Upper Truckee River.

Alternatives 2, 3 and 5 would reconnect the river to historical meanders and the currently isolated floodplain, reactivating the surrounding terrace as an enlarged functional floodplain. Reactivation of the floodplain and return of the river to more natural river processes would significantly reduce peak flows, increase the frequency of overbank flooding and floodplain storage, and enhance riparian and meadow ecosystems.

Alternative 5 (River Ecosystem Restoration with Decommissioned Golf Course) would be the environmentally superior alternative because it would result in the greatest reduction of land coverage; reduce soil, hydrological, and biological impacts; restore the largest area of Stream Environment Zone; and provide long-term water quality and habitat benefits (p. 4-5). Alternatives 3 and 2 would provide similar, but diminishing levels of environmental benefits.

We note that Alternative 1 (No Project/No Action) and Alternative 4 (River Stabilization with Existing 18-Hole Regulation Golf Course) do not meet the project purpose and need to reduce sediment and nutrient inputs and improve geomorphic processes, ecological functions,

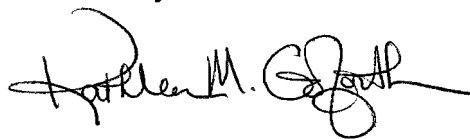
and habitat values. While Alternative 4 would address stream bank and bed stabilization to reduce channel erosion, it does not directly modify channel capacity, streambed elevation, frequency of overbanking, or the area of the functional active floodplain. The existing impaired geomorphic and ecological conditions would continue.

We urge California State Parks, Tahoe Regional Planning Agency, and the Bureau of Reclamation to consider implementation of the alternative that maximizes ecosystem benefits. We recognize the potential loss of golfing activity and revenues to the local economy inherent in Alternatives 3 and 5; however, the DEIS states that there has been a decline in golfing demand (p. 3.8-15), in part due to increasing competition from other nearby golf courses (pps. 3.8-15, 3.8-31, and Appendix E: Lake Tahoe Golf Course Economic Feasibility Analysis).

Based on our review of the DEIS, we have rated the project and document as *Environmental Concerns – Insufficient Information* (EC-2). Please see the enclosed “Summary of EPA Rating Definitions.” We would have significant concerns if Alternative 1 or 4 were selected for implementation because of their inability to meet the stated project purpose and need or to reverse existing impaired ecological conditions. The enclosed detailed comments provide recommendations for additional documentation that should be included in the FEIS regarding compliance with water quality standards, mitigation and monitoring, and Section 404 Clean Water Act compliance.

EPA appreciates the opportunity to provide input regarding the proposed restoration project. When the Final EIS is released for public review, please send one hard copy to the address above (Mail Code: CED-2). If you have questions, please contact me at 415-972-3521, or contact Laura Fujii, the lead reviewer for this project. Laura can be reached at 415-972-3852 or fujii.laura@epa.gov.

Sincerely,



Kathleen M. Goforth, Manager
Environmental Review Office (CED-2)
Communities and Ecosystems Division

Enclosures: Summary of EPA Rating Definitions
Detailed Comments

Cc: Cyndie Walchk, California State Parks
Mike Elam, Tahoe Regional Planning Agency
Robert Larsen and Harold Singer, Lahontan RWQCB

U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR UPPER TRUCKEE RIVER RESTORATION AND GOLF COURSE RECONFIGURATION PROJECT, EL DORADO COUNTY, CA., NOVEMBER 1, 2010

Selection of the Preferred Alternative

Consider implementation of the alternative that maximizes ecosystem benefits. Alternatives 2, 3 and 5 would implement the same river restoration measures, differing in their treatment of the existing Lake Tahoe Golf Course. Many of the existing golf course holes are in the active (i.e., 5-year) floodplain, historic meander belt of the river, and within the Stream Environment Zone (SEZ) (p. 2-4). Bridges serving the golf course restrict flood flows and have modified the geomorphology and hydrology of Upper Truckee River in the study area. Alternative 2 would reconfigure the existing golf course to maintain an 18-hole regulation golf course while minimizing areas within the active floodplain and SEZ. Alternative 3 would reduce the size of the existing golf course to 9-holes and Alternative 5 would decommission the golf course. These alternatives would actively modify the channel and floodplain to restore natural geomorphic and hydrologic processes, providing long-term channel and floodplain stability and a significant reduction of fine sediments and nutrient inputs to the Upper Truckee River and Lake Tahoe.

Alternatives 1 and 4 would not address the long-term underlying causes of fine sediment and nutrient inputs to Lake Tahoe. Existing impaired conditions such as the disconnected floodplain, reduction and loss of historical stream meanders, restricting bridges, and golf course features adjacent to the river and within the SEZ would continue. Past efforts to address stream bank erosion, using similar techniques as proposed by Alternative 4 (riprap, root wads, bank hardening), have already partially failed, demonstrating that Alternative 4 may not provide a long-term solution to stream bank erosion and fine sediment and nutrient inputs (p. 2-85).

Recommendation:

We urge California State Parks, Tahoe Regional Planning Agency, and the Bureau of Reclamation to consider implementation of the alternative that maximizes ecosystem benefits.

Meeting Water Quality Standards

Demonstrate consistency with Lake Tahoe TMDL and updated Tahoe Basin Regional Plan.

Lake Tahoe is listed as impaired under Section 303(d) of the Clean Water Act for nitrogen, phosphorus, and sedimentation/siltation (p. 3.4-21). A Total Maximum Daily Load (TMDL) is being developed to meet the water quality objectives for deep water clarity and transparency (p. 3.4-1). The Lahontan Regional Water Quality Control Board (Lahontan RWQCB) is scheduled to consider this TMDL for adoption on November 16, 2010. The Tahoe Regional Planning Agency (TRPA) is also updating its 1987 Regional Plan in collaboration with the US Forest Service, Lahontan RWQCB, and Nevada Division of Environmental Protection (NV DEP) through their Pathway Collaborative Process.

Recommendations:

The FEIS should demonstrate that the selected alternative is consistent with the proposed TMDL and Pathway Collaborative actions and objectives. The proposed action should not be in conflict with the updated Tahoe Basin Regional Plan. We recommend continued

close collaboration with the Lahontan RWQCB, NV DEP, US Forest Service, and other appropriate entities to ensure water quality standards and planning goals are met.

Mitigation and Monitoring

Provide detailed information on mitigation performance measures, implementation, and maintenance. To address potential local construction erosion effects, the action alternatives include mitigation measures requiring bed and bank stabilization measures at and immediately upstream and downstream of bridge removal sites and downstream of treated reaches (p. 3.4-47). The DEIS describes past efforts to address local erosion (riprap, root wads, bank hardening) which have not been successful and are already partially failed (p. 2-85).

Recommendation:

The FEIS should include additional information on the ability of proposed mitigation measures to provide long-term avoidance and reduction of local erosion effects of the proposed action. We recommend including a chart describing mitigation performance standards, monitoring and reporting requirements, responsible parties, implementation schedule, and maintenance requirements for these measures.

Include validation monitoring to verify expected outcomes of the process-based design features. Alternatives 2, 3, and 5 include both form-based and process-based design features where portions of the channel would be directly modified with the expectation that natural river processes would return and achieve channel equilibrium over time (pps. 2-38, 2-46). Mitigation measures and monitoring are proposed to minimize short-term effects of construction. However, it is not clear whether monitoring is included to verify the design assumption that natural processes of erosion and deposition would establish appropriate channel dimensions over time in areas where the stream is not fully reconstructed.

Recommendation:

We recommend the proposed action include validation monitoring to verify whether the restored river channel is adapting as predicted to the actively reconfigured channel.

Full Disclosure

Provide additional detail on the Section 404 permitting process. The DEIS states that the US Army Corps of Engineers (COE) Section 404 Regional General Permit 16 authorizes Lake Tahoe Basin activities with minimal individual and cumulative impacts, including wetland effects. The DEIS implies that this Regional General Permit would provide Section 404 Clean Water Act compliance for the proposed restoration project. The permit expired on September 30, 2010. The DEIS states an expectation that the COE would extend the expiration date of this permit and/or issue a replacement permit (p. 3.4-1).

Recommendations:

We recommend the FEIS include additional information regarding the 404 permitting process for this project. The current status of Regional General Permit 16 should be described, stating whether the permit has been extended or reissued and the specific activities covered by the permit. We urge California State Parks, TRPA, and Bureau of

Reclamation (BOR) to work with the Sacramento Office of the COE, as soon as possible, to ensure Section 404 compliance for this project.

Provide information to support the expectation that a return to natural river processes, versus stream bank and bed stabilization, would provide long-term reduction in fine sediment and nutrients. Alternative 4 would stabilize the stream bank and bed to reduce fine sediment loads to the Upper Truckee River and Lake Tahoe. This alternative would not directly modify channel capacity, streambed elevation, the frequency of overbank flooding, or increase the area of functional active floodplain. The DEIS concludes that Alternative 4 would maintain the existing impaired geomorphic and hydrologic processes limiting natural geomorphic adjustments to historic disturbances (p. 3.4-66). On the other hand, the DEIS states Alternative 4 would reduce fine sediment loads from stream bank erosion by 15.8% for the entire river relative to existing conditions, as compared to a 10.8% reduction under Alternative 2, 3, or 5, which directly modify the channel to restore natural river processes (pps. 3.4-65 and 3.4-42).

Recommendations:

The FEIS should include data to support the expectation that a return to natural geomorphic and hydrologic river processes, versus stream bank and bed stabilization, would provide a long-term reduction of fine sediments and nutrient inputs to the Upper Truckee River and Lake Tahoe. For example, include information on the state of river restoration science (level of success in obtaining restoration objectives, long-term sustainability) and a description of the costs and benefits of similar restoration efforts, such as the upstream Angora Creek restoration.

Include irrigation system improvements as an integral part of restoration. Include information on water rights and diversion effects. The existing golf course irrigation system is old, resulting in high water usage (960,000 gallons per day) and management inefficiencies (p. 3.3-34). Alternatives 2 and 3 would replace and modernize this system significantly, thereby reducing excess runoff and improving water conservation.

Recommendations:

We recommend replacement and modernization of the golf course irrigation system be an integral part of the restoration project if the selected alternative includes retention of a golf course of any size. Maximization of water conservation and water reuse technologies are likely to be of greater importance with climate change and the potential for more frequent and severe droughts. We recommend the FEIS include additional information on water rights and the effects of the surface and groundwater diversions for golf course irrigation.

Provide an estimate of the cost of restoration. The DEIS does not appear to provide information on the cost of the restoration project by alternative. Instead, the economic feasibility evaluation focuses on whether keeping, reducing, or eliminating the golf course would be economically sustainable and provide income to California State Parks.

Recommendations:

We recommend the FEIS provide an estimate of the cost of the restoration proposal. The FEIS should provide a comparative analysis of the alternatives based upon both the cost of the restoration and the economic feasibility/sustainability of the different golf course treatments (reconfigured, reduced-play, decommissioned).